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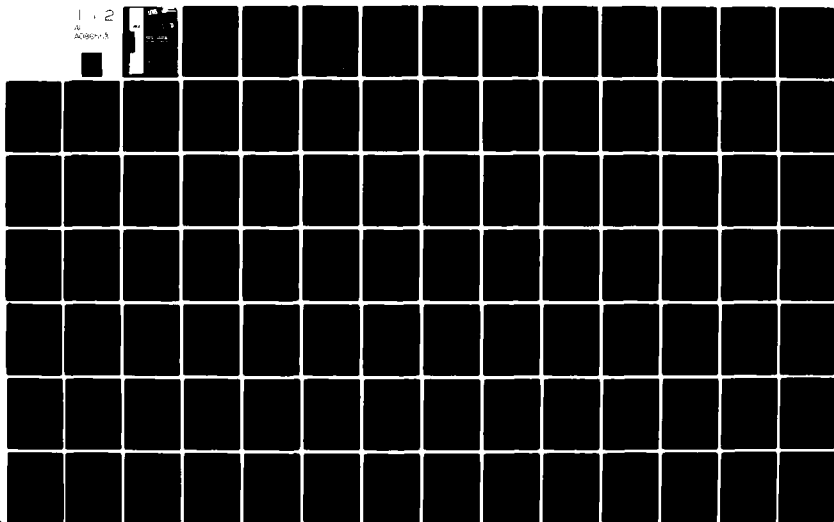
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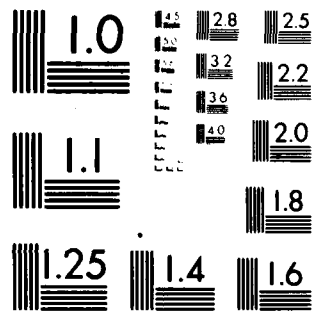
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BIBLIOGRAPHY OF SOVIET LASER DEVELOPMENTS

No. 43

SEPTEMBER - OCTOBER 1979

Date of Report

April 30, 1980

Vice Director for Foreign Intelligence
Defense Intelligence Agency

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20. ABSTRACT This is the Soviet Laser Bibliography for September-October 1979 and is No. 43 in a continuing series on Soviet laser developments. The coverage includes basic research on solid state, liquid, gas, and chemical lasers; components; nonlinear optics; spectroscopy of laser materials; ultrashort pulse generation; theoretical aspects of advanced lasers; and general laser theory. Laser applications are listed under biological effects; communications; beam propagation; computer technology; holography; laser-induced chemical reactions; measurement of laser parameters; laser measurement applications; laser-excited optical effects; laser spectroscopy; beam-target interaction; and plasma generation and diagnostics.		

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Introduction

This bibliography has been compiled under an interagency agreement as a continuing effort to document current Soviet-bloc developments in the quantum electronics field. The period covered is September-October 1979, and includes all significant laser-related articles received by us in that interval. The bulk of the entries come from the approximately 30 periodicals which are known to publish the most significant findings in Soviet laser technology. Citations from the Russian Reference Journals are also included. Laser items from the popular or semipopular press are generally omitted.

For convenience we have abbreviated frequently cited source names; a source abbreviations list and an author index are included. All sources cited with no parenthetical notation are available at the Library of Congress. A parenthetical entry (RZh, KL) indicates the secondary source in which the citation was found as a bibliographic entry or abstract, but for which the original source is not currently available at the Library. The authors' affiliations are indicated by the numbers in parentheses following the authors' names in the text and are listed in the Author Affiliations List. New affiliations are assigned a new number and are added to a cumulative list which includes all affiliations from 1969 to the present. Only those affiliations which appear in this issue are listed in this issue's Author Affiliations List.

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I. BASIC RESEARCH

A. SOLID STATE LASERS

1. Crystal: Ruby

2. Crystal: Rare-Earth Activated

a. Nd³⁺

1. Badal'yan, G.A., V.A. Berenberg, and B.A. Yermakov (0). Optimum operational mode for a pulsed garnet laser with a repetition rate in the 1 KHz range. KE, no. 9, 1979, 1921-1925.
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4. Semiconductor: Simple Junction

a. CdS

7. Brodin, M.S., N.I. Vitrikhovskiy, A.A. Kinel', S.G. Shevel', and N.I. Yanushevskiy (5,6). Optical coupling of partial resonators and its effect on the lasing spectra of CdS platelet lasers. KE, no. 10, 1979, 2238-2240.

b. ZnTe

8. Gribkovskiy, V.P., V.A. Zaporozhchenko, V.A. Ivanov, A.V. Kachinskiy, V.V. Parashchuk, and G.P. Yablonskiy (3). Lasing from ZnTe, ZnSe and CdS single crystals under pumping by picosecond ruby laser pulses. KE, no. 10, 1979, 2229-2232.

5. Semiconductor: Mixed Junction

9. Yunovich, A.E., A.S. Averyushkin, I.A. Drozd, and V.G. Ogneva (0). Dependence of stimulated emission from thin films of $\text{PbS}_{1-x}\text{Se}_x$ on temperatures in the 50-300 K range. FTP, no. 9, 1979, 1694-1700.

6. Semiconductor: Heterojunction

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9. Glass: Miscellaneous

26. Shavelev, O.S., V.A. Babkina, L.A. Didenko, and V.I. Molev (7). Chemically stable athermal glasses. OMP, no. 9, 1979, 24-25.

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1. Organic Dyes

a. Rhodamine

27. Basov, Yu.G., S.A. Boldyrev, A.N. Sopin, and V.V. Fomin (0). Energy instability of dye laser radiation pumped by coaxial flashlamps. RiE, no. 9, 1979, 1833-1839.

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2. Inorganic Liquids

C. GAS LASERS

1. Simple Mixtures

a. He-Ne

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41. Kompanets, O.N., and Ye.L., Mikhaylov (72). He-Ne laser at 0.63 μ with an $^{129}\text{I}_2$ nonlinear absorption cell. KE, no. 9, 1979, 2042-2044.
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a. CO_2

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f. Metal Vapor

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g. Gasdynamic

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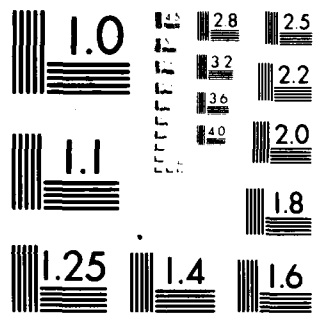
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J. BEAM-TARGET INTERACTION

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IV. SOURCE ABBREVIATIONS

(CIRC Codens)

BWAT	(BWATA)	Biuletyn Wojskowej akademii technicznej J. Dabrowskiego
DAN B	(DBLRA)	Akademiya nauk Belorusskoy SSR. Doklady
DAN SSSR	(DANKA)	Akademiya nauk SSSR. Doklady
DAN Ukr	(DUKAB)	Akademiya nauk Ukrayins'koyi RSR. Dopovidi. Seriya A. Fizyko-matematychni ta tekhnichni nauky
EOM	(EOBMA)	Elektronnaya obrabotka materialov
ETP	(EXPPA)	Experimentelle Technik der Physik
FAiO	(IFAOA)	Akademiya nauk SSSR. Izvestiya. Fizika atmosfery i okeana
FGiV	(FGVZA)	Fizika goreniya i vzryva
FiKhOM	(FKOMA)	Fizika i khimiya obrabotka materialov
FTP	(FTPPA)	Fizika i tekhnika poluprovodnikov
FTT	(FTVTA)	Fizika tverdogo tela
IAN Arm	(IAAFA)	Akademiya nauk Armyanskoy SSR. Izvestiya. Fizika
IAN B	(VABFA)	Akademiya nauk Belorusskoy SSR. Izvestiya. Seriya Fiziko-matematicheskikh nauk
IAN Fiz	(IANFA)	Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya
IAN Khim	(IASKA)	Akademiya nauk SSSR. Izvestiya. Seriya khimicheskaya
IAN Lat	(LZFTA)	Akademiya nauk Latviyskoy SSR. Izvestiya.
IAN Tadzh	(IATOA)	Akademiya nauk Tadzhikskoy SSR. Izvestiya. Otdeleniye fiziko-matematicheskikh i geologokhimicheskikh nauk
IAN Uz	(IUZFA)	Akademiya nauk Uzbekskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh nauk
IT	(IZTEA)	Izmeritel'naya tekhnika
IVUZ Fiz	(IVUFA)	Izvestiya vysshikh uchebnykh zavedeniy. Fizika
IVUZ Geod	(IVZAA)	Izvestiya vysshikh uchebnykh zavedeniy. Geodeziya i aerofotos'yemka

IVUZ Priboro	(IVUBA)	Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniye
IVUZ Radioelektr	(IVUZB)	Izvestiya vysshikh uchebnykh zavedeniy. Radioelektronika
IVUZ Radiofiz	(IVYRA)	Izvestiya vysshikh uchebnykh zavedeniy. Radiofizika
JTP	(JTPHD)	Journal of Technical Physics [Poland]
KE	(KVEKA)	Kvantovaya elektronika
KhVE	(KHKVA)	Khimiya vysokikh energi
KL	(KNLTA)	Knizhnaya letopis'
KLDV	(KLDVA)	Knizhnaya letopis'. Dopolnitel'nyy vypusk
Kristal	(KRISA)	Kristallografiya
KSpF	(KRSFA)	Kratkiye soobshcheniya po fizike
NM	(IVNMA)	Akademiya nauk SSSR. Izvestiya. Neorganicheskiye materialy
Ois	(OPSPA)	Optika i spektroskopiya
OMP	(OPMPA)	Optiko-mekhanicheskaya promyshlennost'
Otkr izobr	(OIPOV)	Otkrytiya, izobreteniya, promyshlennyye obratzsy, tovarnyye znaki
Opt app	(OPAPB)	Optica applicata [Poland]
PTE	(PRTEA)	Pribory i tekhnika eksperimenta
RiE	(RAELA)	Radiotekhnika i elektronika
RRP	(RRPQA)	Revue roumaine de physique
RZhF	(RZFZA)	Referativnyy zhurnal. Fizika
RZhGeofiz	(GZGFA)	Referativnyy zhurnal. Geofizika
RZhMekh	(RZMKA)	Referativnyy zhurnal. Mekhanika
RZhRadiot	(RZRAB)	Referativnyy zhurnal. Radiotekhnika
Sb1	Sbornik	Effektivnyye gazorazryadnyye lazery na parakh metallov. Tomsk, 1978.
Sb2		Wissenschaftliche Zeitschrift der Friedrich-Schiller-Universitaet Jena. Mathematisch-naturwissenschaftliche Reihe, no. 2-3, 1978.
Sb3		Vsesoyuznaya konferentsiya po dinamike razrezhennykh gazov. 6th. Tezisy dokladov. Novosibirsk, 1979.

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nauchno-tekhnicheskaya konferentsiya. 8th. Tyumen',
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5th. 1978. Materialy. Tbilisi, 1978.
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issledovaniy. 2nd. 1979. Sbornik dokladov. Novosibirsk,
1979.
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matematicheskogo fakul'teta. 4th. Materialy. Gor'kiy,
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teplofizicheskogo eksperimenta. Novosibirsk, 1978.
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18th, Gor'kiy, 1977. Part 2. Moskva, 1978.
- Sb32 Fizicheskaya elektronika, no. 18, 1979.
- Sb33 Yugoslav Symposium on the Physics of Condensed Matter. 6th.
Krusevac, 18-22 September 1978. Proceedings. Fizika, v. 10,
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- Sb34 Novyye razrabotki v oblasti opticheskoy golografii i ikh
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Leningrad, 1979.
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Universitaet Jena. Mathematisch-naturwissenschaftliche
Reihe, no. 1, 1979.
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Novosibirsk, 1978.
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- Sb38 Mezhdunarodnaya konferentsiya po chislennym metodam v
gidrodinamike. 6th. Tbilisi, 1978. Sbornik dokladov,
v. 2. Moskva, 1978.

TK1T	(TKTEA)	Tekhnika kino i televedeniya
Tr1	Trudy	Moskovskoye vyssheye tekhnicheskoye uchilishche. Trudy, no. 269, 1979.
Tr2		Belorusskiy universitet. Vestnik. Seriya 1, no. 2, 1979.
Tr3		Moskovskiy energeticheskoy institut. Trudy, no. 397, 1979.
Tr4		Moskovskiy fiziko-tekhnicheskoy institut. Trudy. Radiotekhnika i elektronika, no. 13, 1978.
Tr5		Leningradskiy institut aviatsionnogo priborostroyeniya. Trudy, no. 126, 1978.
Tr6		Glavnaya geofizicheskaya observatoriya. Trudy, no. 415, 1979.
Tr7		Fizicheskoy institut AN SSSR. Trudy, no. 114, 1979.
Tr8		Kiyevskiy universitet. Vestnik. Fizika, no. 20, 1979.
Tr9		Trudy metrologicheskikh institutov SSSR. VNII metrologii, no. 225(285), 1977.
Tr10		Ni tsentr izucheniya prirodnokh resursov. Trudy, no. 5, 1979.
Tr11		NI kinofotoinstitut. Trudy, no. 94, 1978.
Tr12		Fizicheskoy institut AN SSSR. Trudy, no. 112, 1979.
TVT	(TVTYA)	Teplofizika vysokikh temperatur
UAM	(-----)	Uniwersytet Adama Mickiewicza, Poznan. Seria fizyka
UFN	(UFNAA)	Uspekhi fizicheskikh nauk
UFZh	(UFIZA)	Ukrainskiy fizicheskoy zhurnal
VMU	(VMUFA)	Moskovskiy universitet. Vestnik. Fizika, astronomiya
ZhETF	(ZEIFA)	Zhurnal eksperimental'noy i teoreticheskoy fiziki
ZhETF P	(ZFPA)	Pis'ma v Zhurnal eksperimental'noy i teoreticheskoy fiziki
ZhNiPFiK	(ZNPFA)	Zhurnal nauchnoy i prikladnoy fotografii i kinematografii
ZhPMTF	(ZPMFA)	Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki
ZhPS	(ZPSBA)	Zhurnal prikladnoy spektroskopii
ZhTF	(ZTEFA)	Zhurnal tekhnicheskoy fiziki
ZhTF P	(PZTFD)	Pis'ma v Zhurnal tekhnicheskoy fiziki

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AL PEROVICH M A	85	ANDRUSOV A M	85	BABINOV V P	63	BOLOT'KO L M	98
AL'TUDOV YU K	104	ANDRUSOV A M	85	BABINOV V P	15,19	BOLOTOVA G T	98
AMBROSIMOV A K	72	ANDRUSOV A M	85	BABINOV V P	9	BONCH-BRUYEVICH A M	31
ANEL'YANETS A M	17	ANDRUSOV A M	85	BABINOV V P	26,105	BONDARENKO V S	41
ANAN'YEV YU A	72	ANDRUSOV A M	85	BABINOV V P	5,19	BONDARENKO YU F	9
ANCHUTKIN V S	53	ANDRUSOV A M	85	BABINOV V P	104,105	BOR ZS	6
ANDRENKO S D	104	ANDRUSOV A M	85	BABINOV V P	86	BORISEVICH N A	15,63
ANDREYEV A A	52	ANDRUSOV A M	85	BABINOV V P	68	BORONOVYEV V V	43,45
ANDREYEV A P	61,85	ANDRUSOV A M	85	BABINOV V P	17,93	BOROVKOV V V	16
		ANDRUSOV A M	85	BABINOV V P	53	BORSCH A A	52
		ANDRUSOV A M	85	BABINOV V P	40,67,71	BOYKO G A	93

KASHA YEV V	76	KLEVANSKY A V	98	KONOVALOV I N	13	KOZINA G S	4
KAZAROV A YE	62	KLIMKIN V F	77	KONOVALOV N P	18	KOZINCHUK V A	78
KAZAROV YU B	10	KLIMKIN V M	12	KONKOYKO A I	55	KOZLOV N A	7,19
KAZARIAN E A	88	KLIMOV V A	80	KONSTANTINOV N A	22	KOZLOV V S	76
KAZARIAN M A	40,84	KLIMOV V D	67,87	KONSTANTINOV O V	20,32	KOZLOV V S	78
KEL BALIKHANOY R F	46	KLIMOV V I	93	KONSTANTINOV V N	38,75	KOZLOVSKIY K I	105,109
KEPRI J	76	KLOCHKOV V P	93	KONYAYEV S I	77	KOZMA L	6,11,91
KESSLER S	58	KLUSHIN V N	29	KOPANEV V D	22	KOZORIN L G	105,109
KETSKENETI I	6	KLYSHKO D N	94	KOPILEVICH YE A	56	KOZYREV YU P	105,109
KHAKHAYEV A D	88	KLYUCHAREV A N	12	KOP'YEV P S	3	KRAKOVYAK M G	58
KHAKIMOV A A	21	KLYUKIN L M	54,87	KOPYTIN YU D	43,94	KRASHEINNIKOV YE G	16
KHALIMANOVICH D M	15	KNEIPP H	103	KORABLEV V V	81	KRASNYANSKIY G YE	95
KHANOV V A	48,76,77	KNIZHNIK YE I	101	KOPCHIKOV E I	51	KRASOVITSKIY B M	-7
KHARITONOV L A	94	KNOF J	87	KORKHOV YEL	45	KRAYNOV V P	37,44,87
KHARITONSKIY S YA	99	KNYAZEV B A	6	KORMER S B	13	KREKOV G M	45,48
KHASANOV O KH	53	KNYAZEV I N	66	KOROBKIN V V	36,51,107	KREKOVA M M	48
KHATTATOV V U	42	KORANDV N I	24	KOROBKIN YU V	36	KREPSKI J	78
KHERIG G	14	KOCHEMASOV G G	29	KOROLEV A YE	68	KRITSKIY A V	35
KHIZHNYAK A I	5,21	KOCHEZHENKO N G	72	KORONKEVICH V P	77,82	KRIVCHENKOVA V S	88
KHIZHNYAKOV V V	32	KOCHEZHENKO V V	83	KOROTKOV A A	104	KRIVENKOV A V	83
KHOKHLOV E M	61,62	KOCHETOV I V	11	KOROTKOV P A	24,69	KROKHIN O N	26,105
KHOKHLOV V P	19	KOFMAN A G	95	KOROTKOV V I	29	KROPOTKIN M A	48
KHOLIN I V	10	KOFMAN S M	56	KORSUNSKAYA N YE	102	KRUCHENITSKIY G M	48
KHOLODAR G A	113	KOGAN L S	61	KORYAGIN G I	77	KRUGLYAKOVA M A	83
KHOMICH V I	103	KOKOULIN F I	77	KORYAGINA YE I	4	KRUTYAKOVA V P	88
KHOMUTOVA L A	22	KOLGANOV A S	12	KOSHCHENKO V I	4	KRYLOV B V	19,20
KHOR'KOV V F	10	KOLBYANIN YU V	13	KOSHEL'YAYEVSKIY N B	68	KRYLOV V N	28
KHROMCHENKO V B	78	KOLONENSKIY A A	30	KOSICHKIN YU V	5	KRYLOVICH V I	73
KHROMOV V V	31	KOLOGOV YU N	104	KOSTIKOV YU P	95	KRYNETSKIY B B	64,65
KHRUSTALEV V A	9,70	KOLOTOV N P	71,72	KOSTINSKAYA T A	4	KRYNETSKIY L O	52
KHUYAKOV S V	64	KOLOTOLOVA V G	89	KOSTROMIN A B	103	KRYANOV S I	12
KHULORDAVA T G	60,91	KOLOVSKIY YE A	31	KOSTYSHIN M T	88	KRYUKOV P G	95,98
KIDYAROV B I	27	KOLPAKOV YU G	22	KOTIKOV V N	95	KUCHIKYAN L M	40
KIKINESHI A A	60	KOLTOK YU V	22	KOTOV A V	29	KUDLENKO V G	51
KILIN S YA	85	KOL'TSOVA I S	52	KOTYUK A F	69	KUDYAROVA V KH	89
KINEL A A	2	KOLYADIN S A	56	KOVAL' A K	74	KUEHLKE D	18
KIREYEV O A	87	KOL'YAKOV S F	63	KOVALENKO V F	3	KUEHNE K	48
KIRICHENKO N A	99	KOLYSHKIN V I	3	KOVALENKO V G	40	KUKHAREV V N	12
KIRILLIN YU P	41	KOMPANETS O N	8,68	KOVALENKO V S	100	KUKHTAREV N V	33,52,60,89
KIRILLOV G A	13	KONDILENKO I I	24,69	KOVALEV A A	102	KUKUDZHANOV A R	68
KIRILLOV S A	97	KONDILENKO I I	95	KOVALEV V I	104	KULIKOV S YU	62
KIRILOV A YE	12	KONDRA'YEV K YA	112	KOVALEVICH V I	33	KULISH N R	89,96
KIRKIN A N	107	KONDRA'YEV M A	40	KOVARSKIY A P	95	KUMEYSHA A A	76
KIRSANOV A A	67	KONEV YU B	13,16	KOVARSKIY V A	90	KUPCHENKO G A	35
KIR'YANOV V P	77,82	KONKASHBAYEV I K	104	KOWALSKI A	84	KUPCHENYUK V I	17
KIRYUKHIN YU I	66	KONONENKO V K	83	KOZAN L S	57	KURANOV A L	11
KISELEV A M	25,29	KONONOV V A	103	KOZEL S M	18	KURASHOV V N	54
KLASSEN I F	95	KONOSHENKO A F	15	KOZEL S P	58	KURBATOV L N	4,22
KLEIN B	60	KONOV V I	99	KOZHUKHOVA YE V	103	KURBATOV V A	74,86
KLEMENT'YEV V M	10	KONOVALOV B V	52	KOZIN G I			

KURDYUMOV O A	56	LEGU L YE	75	LYSENKO B M	47	MARKOV V A	24
KURIN V V	107	LEMANOV V V	25	LYSENKO V V	76	MARKOV V B	59
KURKIN N N	89	LEMERMAN G YU	12	LYUBIMOV V V	21	MARKOVA S V	12
KURNOSOV I V	94	LENK H	55	LYUL'KA V A	67	MARKOVICH I E	108
KUROCHKIN YU V	13	LEN'KOV S I	89	LYUSINA O A	98	MARONCHUK I YE	3
KUSHLYANSKIY O A	65	LENKOVA G A	82			MARTSYNK'YAN V L	62
KUTATELADZE S S	107, 110	LEONTOVICH A M	107			MARTYNYUK A S	10
KUTOVOY V D	78	LESNIK A S	21			MARTYNYUK M M	106
KUTSAK A A	84	LETOKHOV V S	68			MASARNOVSKIY L V	5
KUTSENKO A V	105, 107, 112	LEVASHKEVICH L V	36			MASHCHENKO A I	54
KUT'YENKOV A A	35	LEVANSKIY V V	66			MASHINSKIY V M	41
KUVSHINOV A M	56	LEVIN M B	7			MASYCHEV V I	10
KUVSHINOVA K A	78	LEVIN V M	31			MATVEYENKO A V	3
KUZ'MENKO V A	88	LEVINSKIY B N	102			MATVEYETS YU A	95
KUZ'NICHIEV V M	22	LEVINSON D I	101			MATVEYEV A Z	25, 29
KUZ'MIN V N	9	LIRENSON M N	32			MATVEYEV V T	97
KUZ'MINOV YU S	33	LIKAL'TER A A	15			MATVIYENKO G G	47
KUZNETSOV L I	107	LIPATOV N I	16, 69			MATYASHEV V V	71
KUZNETSOV S M	37	LISITS A P	89, 96			MATYUGIN YU A	11
KUZOVKOVA T A	24	LISITSYN V N	64			MATYUK V M	66
KUZYAKOV B A	10	LOBACHEV A N	89			MATYUSHKIN E V	64
KUZYAKOV YU A	100	LOBANOV G V	76			MAYRIN B N	99
KVOCHKA V I	78	LOBKO V V	66			MAYEV R G	31
		LOBKOV M M	48			MAYISTOV A I	27, 31, 34
		LOBOV L I	41			MAYER A A	32
		LODIN G B	92			MDIVANI V N	3
LAGODA V B	106	LOGACHEV F A	40			MEDOVIKOV A S	49, 79
LAHNTIONOV V I	73	LOGINOV A P	68			MELIKYAN A D	88
LAKDA P S	8	LOGINOV V A	42			MEL'NICHUK I V	102
LAPSKER YA E	35	LOKHMAN V N	65			MEL'NICHUK V G	83
LAPTEV I D	104	LOKHOV YU N	86, 101			MEL'NIK N N	93, 99
LARIKOV L N	100	LOKK YA F	46			MEL'TSIN A L	79
LARIONOV YU P	18, 110	LOKSHIN B V	97			MEN'SHIKOVA YE M	92
LARKIN A I	57	LOKSHIN G R	18			MENSOV S N	91
LASHKOV G I	58	LONGOSOV V V	67, 92			MESH M YA	40
LASKORIN B N	66	LOPASOV V P	49, 96			MESHCHERYAKOV YU I	79
LATYIN YU M	22	LOPINA S V	94			MESYATS G A	62
LATYSHEV A I	75	LOSEV L L	28			MEYERSON M B	80
LATYSHEV S V	38	LOSEV V F	13			MEYLYAR M P	59
LAVRENCICH B	97	LOZOVSKIY V A	96			MEYLYAR M L	78
LAVRISHCHEV S V	41	LUGOVOY V N	18, 27			MIERZECKI R	97
LAVROV A F	71	LUGOVSKOY V B	101			MIKAEL'YAN A L	33
LAVRUKOVICH V I	45	LUIZOVA L A	98			MIKAEL'YAN G T	3
LAZAREV YU A	95	LUKIN A V	92			MIKHALASH P G	85
LAZHINTSEV B V	16	LUKIN V P	51			MIKHAL'CHENOK G F	110
LEBEDEV O L	6	LUK'YANCHUK B S	99			MIKHAYLOV I G	52
LEBEDEV S V	6	LUK'YANCHUK S F	96			MIKHAYLOV M D	89
LEBEDEV V P	96	LUK'YANETS YE A	6, 7			MIKHAYLOV S I	29
LEBEDEVA N S	6	LYANOV V YE	57			MIKHAYLOV V M	62
LEGASOV V A	67, 88	LYKOV V A	107			MIKHAYLOV YE L	8, 68

PETROV B D	31	FORUM-REV YU B	67,92	PIAMUDU A A	109	RUBINOWICZ W	38
PETROV B D	34	PONOMAREV YU V	8	K		RUDICHEV V G	100
PETROV L V	35	POPKOV A I	43,49			RUDIK K I	70
PETROV R P	36	POPELITOV V I	50			RUDNEVSKIY N K	98
PETROV V K	37	POPOV A I	73,74	PACZ B	6,11,91	RUDNEVSKIY V S	4
PETROV YU N	38	POPOV A K	25,27	KADUITSAN S I	99	RUDOV S G	85
PETROVICH P I	39	POPOV L N	69	KADCHENKO A F	4	RUPASOV A A	26,105,108
PETROVSKIY A P	40	POPOV V K	73	KADZIEVSKIY V N	108	RURUKIN A N	8
PETROVSKIY V N	41	POPOV YU M	41,103	KAGOLIN YE N	107,108	RUSANOV D	16
PETRU F	42	POPOVA I F	100	RAGUL'SKIY V V	30,39	RUSANOV YE	74
PETRUKHIN A I	43	POPOVICH V I	30,39	RAKHVAL SKIY M P	85	RUSTANOV YA	35
PETRUNKIN V YU	44	POPUKIN V J	71	RASPOPOVA YE M	51	RYABCHIKOVA V P	98
PEVGOV V G	45	PORODNIKOV U YE	19	RASTOROGUEV YU G	68	RYABOV YE A	63
PIASECKI S	46	PORINAGIN A I	90	RAUHUT J	49	RYABTSEV N G	4
PIKEL'NI V F	47	POSTNIKOV A A	55	RAUTIYAN S G	29	RYBAKOV V A	108
PIKHTIN A N	48	POTANIN S F	51	RAYCHENOK I F	63	RYKHLOV A F	20
PILIPETSKIY M F	49	POTAPOV O A	56	RAYTSIN A M	69	RYKUN YE P	101
PILIPOVICH V A	50	POTAPOV V A	64,66	RAZHEV A N	64	RYSAKOV V M	29
PIMENOV V P	51	POTATURKIN U J	32	REBANE I K	32	RYUKHIN V V	92
PIROZHKOV V A	52	POTERKIN V M	82	REBROV A K	66	RYZHOV V V	14
PISAREVSKAYA S A	53	PRANTS S V	39	REICHEL W	24	RZAYEV D A	93
PIVISOV V S	54	PREORRAZHENSKIY M A	64	RENTSCH M	103	RZHEVSKIY S P	41
PLASTININ V V	55	PRILEPIN M T	79	RESHETNIKOV A I	83		
PLATONOV A V	56	PRISYAZHNY V L	97	RESHETNYAK N B	96		
PLESHANOV YU V	57	PRIZ I A	22	RESHINA I I	89		
PLESHANOV YU YE	58	PROKHINDEYEV A V	36	REZCHIKOVA K I	98	SABANOVA L D	4
PLETNEV V V	59	PROKHODIA A L	66	REZNIKOVA I I	58	SABLINA N I	86
PLOTKIN M YE	60	PROKHOROV A M	16,33,38,40	RIEDEL W	70	SADREYEV A F	19
PLOTNICHENKO V G	61	PROKHOROV N P	62,66,69,111	RIVLIN L A	11	SAFONOV V P	29
PODOBEDOV V B	62	PROKHOROV V P	25	RODIONOV A N	28	SAGALAKOV A M	45
PODPALYY YE A	63	PROKLOV V V	24	RODIONOV N YE	56	SAKHAROV V K	76
POGORELOV A YE	64	PROKOF'YEVA N K	40	ROGALIN V YE	54	SALIVON G I	95
POGORELOV V YE	65	PROKOPENKO N V	96	ROKOTYAN V YE	101	SAMARSKIY A A	108
POKASOV V V	66	PROKOPENKO A P	104	ROMANENKO V V	47	SAMARSKIY P A	78
POKROVSKAYA I YE	67	PROKOP'YEV V YE	10	ROMANOV N G	100	SAMARTSEV V V	2,34,90
POLESCHUK A G	68	PROKOP'YEV V YE	12	ROMANOV YU D	1	SAMOKHVALOV I V	47
POLEVY A V	69	PROTASEVICH V I	59	ROMANOV YU F	32	SAMOYLOVA N V	80
POLISHCHUK YU M	70	PROTSENKO YE D	8,73,74	ROMANOVSKIY G F	20	SANTA I	11,91
POLIVANOV YU N	71	PRYAKHIN YU A	56	ROMANOVSKIY G F	80	SAPEGA V F	89
POLKOWSKI G	72	PRZHEVUSKIY A K	96	ROM-KRICHEVSKAYA I A	94	SAPELKNIN V	18
POLKOVINKO V V	73	PRZHIBEL'SKIY S G	31	ROSTOMYAN A G	61	SAPOLZHNIKOVA V A	92
POLKOVNIK M	74	PRZHONSKIY A M	70	ROZANOV V B	90	SAPRYKIN E G	11
POLUEKTOV I A	75	PRZHONSKIY A M	64	ROZANOV V V	106	SAPRYKINA YE A	19
POLUEKTOV P P	76	PTITSYN G A	68	ROZANOV V B	81	SARATOVSKIY O B	19
POLUKHIN V N	77	PUDER J	70	ROZNIKOWSKI K	5	SARKISOV O B	96
POLUNIN YU P	78	PUGOVKIN A V	54	RUBANOV A S	21,53	SARKISOV S E	1
POLYAKOV B I	79	PUKHLIY ZH A	5	RUBENCHIK A M	108	SARKISOV B G	61,62,67
POLYAKOV V I	80	PUPYSHOV S A	6	RUBEZHNYI YU G	31	SASHINA L A	78
PONOMAR' V V	81	PUSHNOY B M	54	RUBIN L B	94	SATTARDV F A	59
PONOMARENKO A G	82	PUSTOGAROV A V	13	RUBINOV A N	7,93	SAVANIN S YU	102

SAVLIN G S	72	SHEGEDA A M	89	SHVYADAS V I	39	SNEZHKO YU A	81
SAVOST'YANOV V A	90	SHEKHINAD V L	86	SIDAK P I	46	SOROLEV B P	35
SAVRANSKIY V V	40	SHELEKHONOV N S	58	SIDORENKO A V	45	SOROLEV V S	74, 77
SAVUSHKIN A F	17	SHELEPIN L A	31	SIDOROVA YE I	35	SOROLEVSKIY A F	71
SAYACHNIKOV V A	67	SHELKOVNIKOV N K	81	SILAYEVA N G	2	SOKOLOV V P	78
SAYENKO L V	37	SHEMATOVICH V I	109	SILICHEV O O	5	SOKOLOV YE B	90
SCHLICHTING J	57	SHER YE S	91	SILIN V P	26, 27, 105	SOKOLOV YE S	50
SCHNAPP J D	102	SHEROZIYA G A	106	SILINA T V	73	SOKOLOV V G	12
SCHREIER D	60	SHERSHUKOV V M	7	SILINA YE K	93	SOLDATOV A N	6, 12
SCHUBERT H	9, 28, 32	SHERSHUN YE F	69	SIL'KIS E G	63	SOLDATOV V P	81
SCHUELER R	50	SHERSTORITOV V YE	17	SIMONOV A P	34	SOLNTSEV M V	81
SCHWINDER J	80	SHESTAKOV N P	81	SIMONYAN K KH	33	SOLODUKHIN A D	73
SCZANIECKI L	33	SHESTOPALOV V P	53	SIMONYAN V O	30	SOLOMATIN V S	33
SEDELETSKIY O A	90	SHEVEL' S G	2	SINILGA L N	49, 96	SOLOMKO O R	12
SEFEROV A S	79	SHEVELEVA T YU	48	SINITSYNA Z A	66	SOLOMONOV A V	90
SELCZNEV A F	78	SHEVERA V S	40	SINTYURIN G A	24	SOLOVAROV N K	53, 89
SELEZNEV V A	111	SHEYBUT YU YE	2	SIRUTKIN N I	97	SOLOV'YEV A A	43
SEMAK D G	60	SHEYKHET E G	101	SIRUTKAYTIS V	4	SONIN A S	87
SENGHIKOV YU D	60	SHEYNIN A B	47	SISAKYAN I N	40	SOPIN A N	5
SEMNENKO K A	100	SHEBANOV A N	66	SITNIKOV G A	40	SORIN V YA	41
SENESETS I I	89	SHIBARSHOV L I	107	SITNIKOV V P	60	SORKIN G L	83
SEMNENOV L P	42	SHIBAYEV I N	87	SKACHKOV A N	61	SORKA A M	14
SEMNENOV G P	83	SHIFRIN K S	111	SKIBA P A	100	SOSKIDA M T I	109
SENYACHKIN B YE	63	SHIKANOV A S	26, 105	SKINDEROWICZ B	84	SOSKIN M S	5, 21, 33
SERAPINAS P D	39	SHIKANOV A YE	105, 109	SKLIZKOV G V	26, 105	SOTIN V YE	56
SERBULENKO M G	103	SHIKHALEV E G	77	SKOBELEV I YU	108	SPIRIDONOV V V	18
SEREBRYAKOV V A	28	SHILOV V B	6	SKOBLIKOV S V	61, 85	SPIRO A G	6
SERGEYEV V V	17	SHIROKIKH A P	11	SKOROKHOZOV S S	58	STABNIKOV M V	76
SEROV R V	51	SHIROKOV V I	87	SKREBOV V N	81	STADNICHENKO	81
SEVCHENKO A N	67	SHISHKINA YE YU	6	SKRIPCENKO A I	81	STAFANSKI P	5
SHABANOV V F	81	SHITOV O P	98	SKVORTSOV V V	71, 81	STANCHITS S A	81
SHARLIY I YU	102	SHKERDIN G N	91	SKVORTSOVA G V	95	STANISZEWSKA E	35
SHAFRAN'OSH I I	35	SHKUNOV V V	30	SKVORTSOVA YE P	62	STARIK V D	83
SHAKHIDZHANOV S S	22, 91	SHKVAR A YA	80	SLIVINSKIY A P	37	STARIKOV S N	57
SHALAGIN A M	62	SHLYAPOCHNIKOV V A	98	SLIVITSKIY A A	12	STARODUB A N	26, 105, 109
SHAL'NOV B V	56	SHMAL'KO A V	20	SLIVITSKIY A A	12	STARODUB V P	35
SHAMANAYEV V S	50	SHMARTSEV YU V	83	SLOBODA V YU	98	STAROSTIN A N	11
SHAPAREV N YA	108	SHMATIN S G	55	SLOBODYANIK V V	87	STARTSEV A V	11
SHAPIRO A YA	89	SHOROKHOVA V S	87	SLOMKA I	35	STASEL'KO D I	28, 68
SHAPIRO D A	98	SHOTOV A P	3	SMAGIN A G	78	STAVRAKOV G N	59
SHARIY K A	71, 72	SHTARKOV A L	62	SMAGIN N N	13	STEC W	73
SHARKOV A V	95, 98	SHUGAYEV F V	107	SMIRNOV A D	71, 72	STEFANOVICH S YU	88
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SHATSEVA L S	58	SHUMILKIN V G	84	SMIRNOV G I	11, 98	STEL'MAKH M F	71
SHAVELEV O S	5	SHUMRIKOV V V	95	SMIRNOV M G	29	STEPANOV A V	71
SHAYDOVA V G	58	SHUMYATSKIY P S	9, 68	SHIRNOV V G	28	STEPANOV N S	91
SHAYDUK A M	45	SHURMEL' L B	66	SHIRNOV V L	20, 41	STEPANOV S I	60, 73
SHCHELEV M YA	80	SHUVALOV L A	33	SHIRNOV V N	88	STEPANOV V I	86
SHCHELOKOV R N	98	SHUVALOV V A	98	SHOLENSKIY G A	41	STERIN KH YE	99
SHCHERBAKOV I A	5, 35	SHUVALOV V V	33	SHOLYAK A YA	73	STOLYARENKO A V	89, 96

STOLYAROVA N A	45	TEL'NIKHIN A A	45	VAVILOV V S	85
STOMI G G	101	TERESHCHENKO A I	89	VAYNDRUK E S	50
STUYKHIN J G	89	TERESHKIN YU M	75	VAYNER YU G	63
STRAPOVSKAYA S	81	TEK-MARKARYANTS A YU	112	VAYSLEYB YU V	21
STRIZHEV V S	7	TERPUKOV YE L	70	VEDERNIKOV V M	82
STROGANOV V I	27	TIBILOV V K	3	VEJBOR P	76
STUDENOV V B	36	TIKAS E	50	VELICHKO G I	86
STUPIN N P	63	TIKHOMIROV B A	82	VELIKIKH V S	100
STYROV V V	65	TIKHOMIROV V V	43	VELYUTIN L P	82
SUBBOTIN L K	105	TIKHONCHUK V I	28,105	VEREVTSEV YU N	98
SUBBOTIN S I	99	TIKHONOV B A	13	VERETENNIKOV V V	59
SUKHANOV L V	16	TIKHONOV V P	46	VERGUN I I	105,109
SUKHANOV V B	6	TIKHONOV YE A	7	VESELA Z	18,19
SUKHANOV V I	58	TIMOFEEV A L	57,61	VESELAGO V G	85
SUKHORUKOV A P	30,32	TIMOFEEV V P	25	VESHCHUNOV YU P	1
SUKHOVIYA M I	40	TIMOFEEV YU F	35	VETKINA S N	38
SULTANOV G A	112	TIMOFEEVA L N	100	VIL'CHINKAS SH P	33,60,113
SUMINOV V M	82	TISHCHENKO A A	24	VINETSKIY V L	57
SURKOVA V F	4	TITKOV V I	21	VINOGRADOV G K	83
SUSHKOV A G	50	TITOV A N	75,78,82	VINOGRADOV YE A	93,99
SUSLENNIKOV L A	83	TITOV V A	68	VINOGRADOVA T G	83
SVERCHKOV YE I	71	TITOV V D	98	VINOKUROV G N	18,83
SVIRIDOV K N	22	TITOVA N B	63	VITE T A	83
SVIRIDOV M V	39	TKACHENKO I M	87	VITRIKHOVSKIY N I	2
SVIRKUNOV P N	50	TKACHENKO V I	4	VLADIMIRSKIY A B	27
SYCHUGOV V A	21	TLUSTY J	98	VLASOV D V	51
SYCZEWSKI M	13	TOKAREVA A N	50	VLASOV G YA	12
SYSOYEV N N	107	TOLMACHEV YU A	19	VLASOV V L	51,75
SYSOYEV V K	9	TOLSTOPYATOV O I	15	VODOP'YANOV L K	22
SZADZINSKI L	23	TOLSTOROTZHEV G B	20	VODOVATOV I A	83
SZUCS-K	91	TOMASHOV V N	15	VOGEL W	52
SZYDLOWSKA J	58	TOMBAK M A	15	VOLK T R	33
SZYMANSKI M	2	TOPUNOV A M	76	VOLKOV V D	74
SZYPULA W	106	TORO L	82	VOLKOV V I	52
		TRAVNIKOV V V	60	VOLKOV V M	7
		TRAYBER A S	97	VOLOSHCHENKO YU I	56
		TRAYNIN A L	90	VOLOSOV V D	27
TABATADZE D G	55	TREGUBOV S I	101	VOROB'YEV A N	105
TABIRIN N V	30	TRET'YACHENKO G N	78	VOROB'YEV V G	83
TAKTAKISHVILI M I	103	TREUSHNIKOV V M	82	VORONIN E S	74
TARANANOV V I	76	TRIFONOV YE D	60	VORON'KO YU K	33
TARANUKHIN V D	29	TROFINOVA T K	33	VORONKOVA V I	35
TARARAKSINA O G	100	TROIITSKIY I N	91	VORONOV V V	78
TARASENKO V F	13	TROJANDZSKI W	73	VORONTSOV M A	33
TARASOV I S	3	TROPCHENKO A YU	72	VOROPAY YE S	33
TARTAKOVSKIY V A	98	TROPKIN YE N	20,32	VOROSHLOV YU V	98
TATARENKOV V M	9,68	TRUBACHEYEV E A	17	VOROZHEYKINA L F	60,91
TAVSHUNSKIY G A	35	TRUKHIN M M	43,45	VOSTRIKOV A A	63
TELEGIN G G	62	TRUKHIN V N	85	VOTINOV M P	85
TELEGIN G I	71		91		

VOYEVDIN A A	83	YEREMEYEV YE P	85	ZEL'DOVICH R YA	30,39
VOYTIK M G	14,70	YERMACHENKO V M	5	ZELENIINA L I	55
VOYTOVICH A P	10	YERMAKOV B A	1	ZELINSKIY I N	74
VUL' A YA	83	YERMAKOV O A	55	ZEMSKOV K I	40,84
VYSKUBENKO B A	13	YERMOLENKO V A	100	ZEMSKOV YE M	17,29
VYSOTSKIY M G	83	YEROKHIN A N	105	ZEIGER S G	114
		YESAYAN S KH	25	ZEYNALLY A KH	57,61
		YESEPIKINA N A	83	ZHDANK S A	11
		YESMAN A K	30	ZHELTOK S I	21
WENDLAND K H	59	YEVEYEV G V	84	ZHELTOTOVDOV A A	84
WIEGZOREK L W	26	YEVIKHIYEV N N	25,34	ZHIGULEVA I S	47
WIEDERHOLD G	9	YEVTUSHENKO G S	12	ZHILEVSKIY A I	82
WOJTKOWIAK J	20	YEVTYUKHOV K N	75	ZHILINSKAS E	4
WOLANY J	73	YUNOVICH A E	2	ZHILINSKIY A P	105
WOLPKE H	38	YURINOV A A	61,80	ZHITAR' V F	99
WOZNIAK S	34	YUROV V YU	69	ZHITNIKOV R A	1
WRZESIEN M	22	YURYSHEV N N	15,19	ZHIVOTOV V K	16
		YUSHIN A S	41	ZHIZHIN G N	93,99
				ZHUKOV A F	51
				ZHUKOV YE A	93
				ZHULIN V I	18
				ZIMNY J	25
YABLONSKIY J P	2	ZABELINA L G	83	ZIMNY J	25
YACHMEV V YE	4	ZABELLO YE I	7	ZIMNY J	25
YAKOVLEV D A	93	ZADOROZHNIY V I	70	ZIMNY J	25
YAKOVLEV V A	71,73	ZAGORODNYUK V I	114	ZIMNY J	25
YAKOVLEV V G	107	ZAKHARENKO YU A	109	ZIMNY J	25
YAKUBAYTIS E A	71,72	ZAKHAROV N A	98	ZIMNY J	25
YANKOV V P	71	ZAKHAROV S M	34	ZIMNY J	25
YANOVSKIY V K	78	ZAKHAROV V M	42	ZIMNY J	25
YANUSHEVSKIY N I	2	ZAKHAROVA I S	84	ZIMNY J	25
YARUSHENKO O I	7,76	ZAKHARUK Z I	102	ZIMNY J	25
YASHCHUK V N	87	ZAKHARUK Z I	21	ZIMNY J	25
YASHCHURZHINSKAYA O A	85	ZAKHARUK Z I	81	ZIMNY J	25
YASHIN A YE	71	ZAKHARUK Z I	43	ZIMNY J	25
YASSIYEVIKH I N	106	ZAKHARUK Z I	84	ZIMNY J	25
YASTREMSKIY A G	14	ZAKHARUK Z I	102	ZIMNY J	25
YATSENKO V A	91	ZAKHARUK Z I	21	ZIMNY J	25
YEDAKIN A A	76	ZAKHARUK Z I	81	ZIMNY J	25
YEFINKOV V F	29	ZAKHARUK Z I	43	ZIMNY J	25
YEGIAZARYAN A M	61	ZAKHARUK Z I	84	ZIMNY J	25
YEGOROV A D	51	ZAKHARUK Z I	102	ZIMNY J	25
YEGOROV G S	91	ZAKHARUK Z I	21	ZIMNY J	25
YEGOROV K D	53	ZAKHARUK Z I	81	ZIMNY J	25
YELAYEV V F	12	ZAKHARUK Z I	43	ZIMNY J	25
YELETSKIY A V	67	ZAKHARUK Z I	84	ZIMNY J	25
YELESEYEV P G	3	ZAKHARUK Z I	102	ZIMNY J	25
YELYUTIN S O	34	ZAKHARUK Z I	21	ZIMNY J	25
YEMALEYEV O N	51	ZAKHARUK Z I	81	ZIMNY J	25
YENIKOLOPOV N S	76	ZAKHARUK Z I	43	ZIMNY J	25
YEPISHOV V A	9	ZAKHARUK Z I	84	ZIMNY J	25
YERENKO V V	64	ZAKHARUK Z I	102	ZIMNY J	25
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